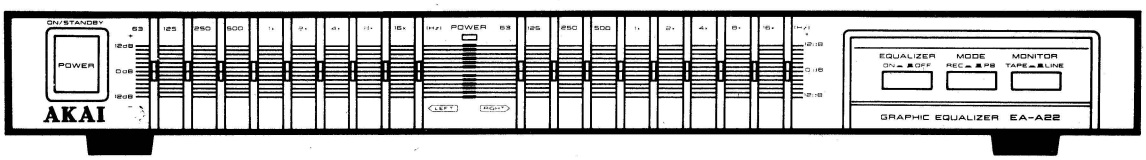
AKAI SERVICE MANUAL



GRAPHIC EQUALIZER

MODEL EA-A22

I. SPECIFICATIONS

CENTER FREQUENCY	63Hz/125Hz/250Hz/500Hz/1kHz/2kHz/4kHz/8kHz/16kHz
CONTROL RANGE	±12dB
LINE INPUT SENSITIVITY/IMPEDANCE	150mV/47kohms
TAPE INPUT SENSITIVITY/IMPEDANCE	150mV/47kohms
LINE OUTPUT LEVEL/IMPEDANCE	150mV/1.5kohms
TAPE OUTPUT LEVEL/IMPEDANCE	150mV/1.5kohms
S/N (IHF-A)	More than 80dB
DISTORTION	Better than 0.09%
GAIN (FLAT POSITION)	0dB
POWER REQUIREMENTS	120V, 60Hz for USA and Canada 220V, 50Hz for Europe except UK 240V, 50Hz for UK and Australia 110V-120V/220V-240V, 50Hz/60Hz convertible for other countries
DIMENSIONS	440(W) x 45(H) x 250(D)mm (17.3 x 1.8 x 9.8 inches)
WEIGHT	2.1kg (4.b lbs)

* For improvement purposes, specifications and design are subject to change without notice.

EQUALIZER SW PCB D3005C501A

JACK PCB D3005C501B

LED PCB
D3004B501E [U] D3004B502E [A,C]
D3004B503E [E,S] D3004B504E [B]

EQUALIZER PCB
D3004B501A [U] D3004B502A [A,C]
D3004B503A [E,S] D3004B504A [B]

POWER SW PCB
D3004B501C [U]
B502C [C,A]
B503C [E,S]
B504C [B]

POWER SUPPLY PCB D3004B501B [U]

POWER SUPPLY PCB D3004B502B [A,C]

POWER SUPPLY PCB D3004B503B [E,S]

POWER SUPPLY PCB D3004B504B [B]

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

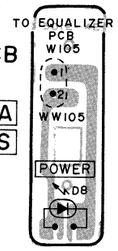
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50WV(J)
POWER TRANSFORMER IS DIFFERENT ACCORDING TO AREA

B (POWER SUPPLY) LINE

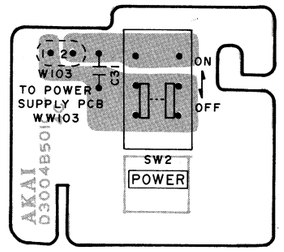
SIGNAL LINE (LEFT ch. ONLY)

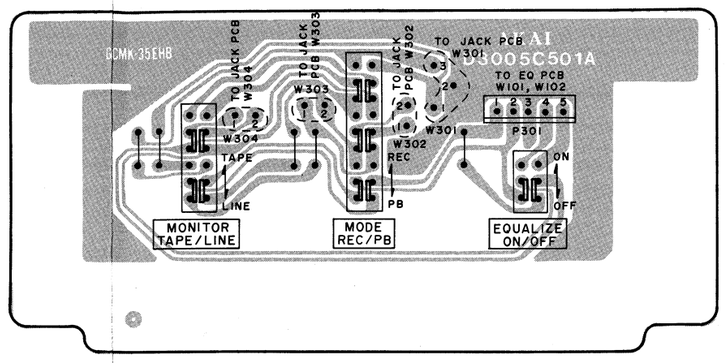
EA-A22
SCHEMATIC DIAGRAM
NO. 850519B

LED PCB
D3004B501E U
502E C.A
503E E.S
504E B

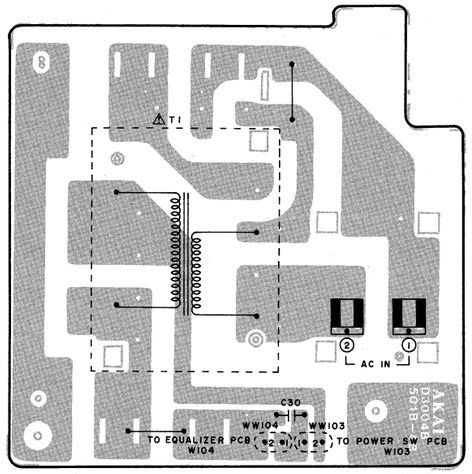


POWER SW PCB
D3004B501C U
502C C.A
503C E.S
504C B

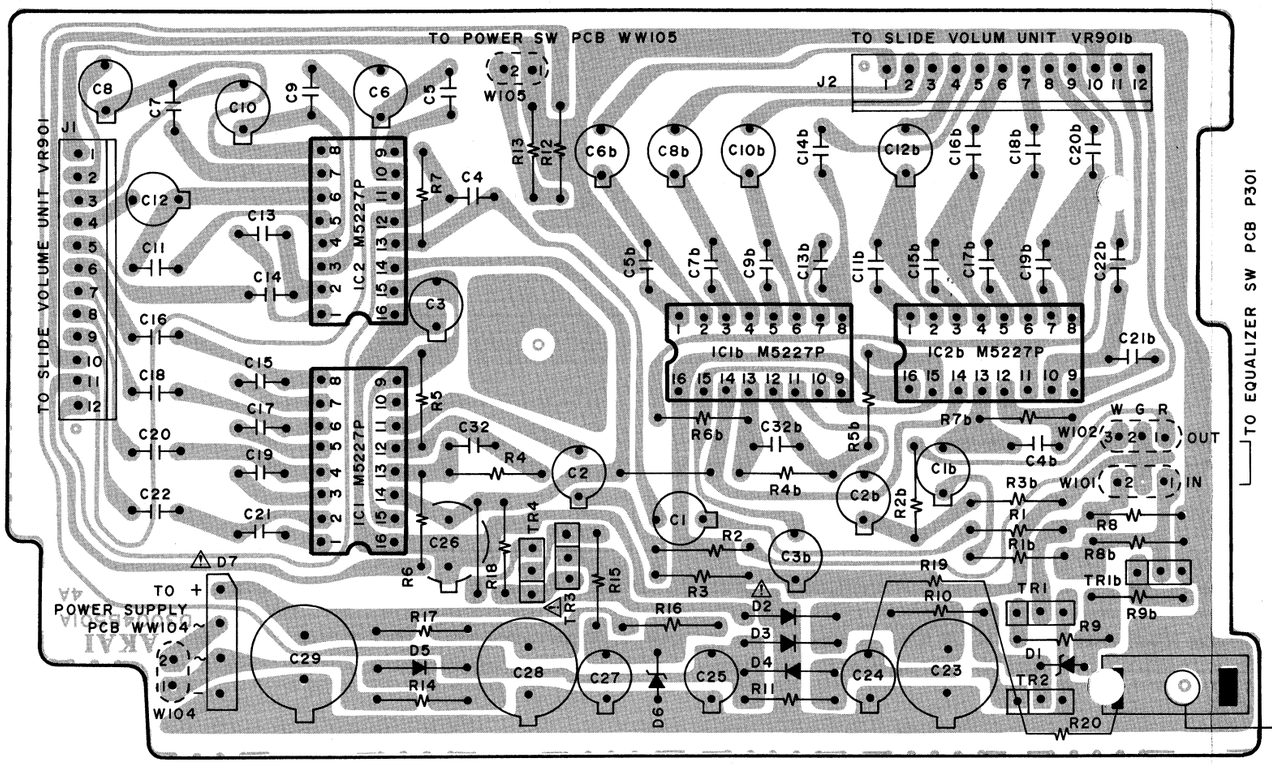




EQUALIZER SW PCB



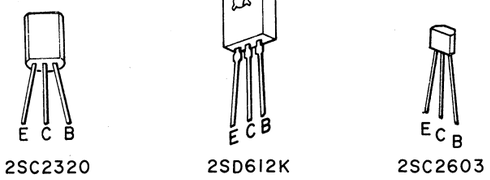
POWER SUPPLY PCB D3004B502B C.A



EQUALIZER PCB D3004B501A U
502A C.A
503A E.S
504A B

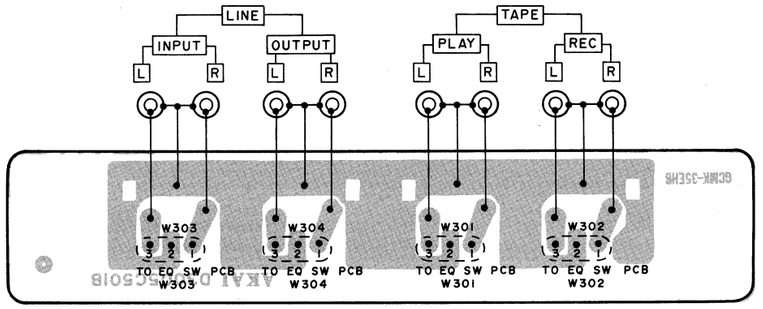
TR1, 1b, 4 --- 2SC2320(E,F)
TR2 ------- 2SC2603
TR3 -------2SD612K(E,F)

B
= NPN TRANSISTOR

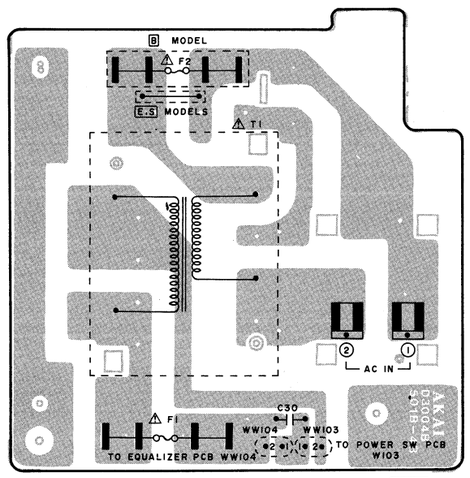


WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

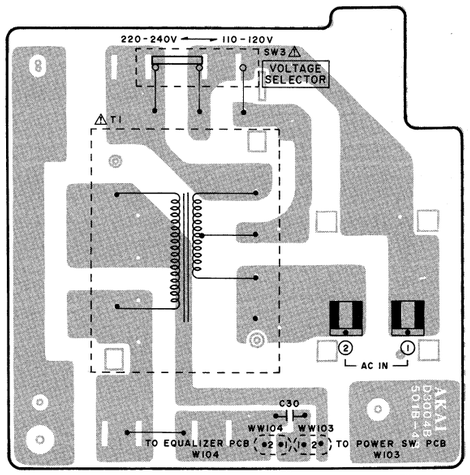
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT



JACK PCB



POWER SUPPLY PCB D3004B503B E.S
504B B



POWER SUPPLY PCB D3004B501B U

II. CONTROLS

RECOMMENDED SPARE PARTS

Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

REF. NO.	PART NO.	DESCRIPTION
1	BT-355207	⚠ TRANS POWER D3004(A,C)
2	BT-355208	⚠ TRANS POWER D3004(E,B,S)
3	BT-355205	⚠ TRANS POWER D3004(U)
4	ED-322772	D LED SLP155D-01 RED
5	ED-330319	D SILICON DBA10B 100/1.0A
6	ED-301911	D SILICON H DS448
7	ED-323836	D ZENER H HZ16 2
8	ED-329058	D ZENER H HZ5 C1
9	EF-355226	⚠ FUSE BET T 1.00A 250V [B]
10	EF-360723	⚠ FUSE BET T 100MA 250V [B]
11	EF-339902	⚠ FUSE SEMKO T 250V 0.10A [E,S]
12	EI-355211	IC M5227P
13	ES-349464	⚠ SW SLIDE 00120319 01-2 [U]
14 N	ES-362778	SW PUSH SPUJ-31 3 THROW
15	ES-355213	SW PUSHSUL191S 2-02-02N
16	ET-349705	TR 2SC2320 E,F,G
17	ET-308141	TR 2SC2603 G
18	ET-310148	TR 2SD612K E,F
19 N	EV-355209	VR SPL SLIDE 20MN 9-THROW GLAY

"NOTE" N: New Parts

SYMBOL FOR DESTINATION

[A] : AAL (USA)
[B] : UK (England)
[C] : CSA (Canada)
[E] : CEE (Europe)
[S] : SAA (Australia)
[U] : U/T (Universal Area)

1. PC BOARD BLOCK

REF. NO.	PART NO.	DESCRIPTION
1-1A	BA-D3004A020E	PC EQUALIZER BLK EA-A22(U)
1-1B	BA-D3004A020F	PC EQUALIZER BLK EA-A22(C,A)
1-1C	BA-D3004A020G	PC EQUALIZER BLK EA-A22(E,S)
1-1D	BA-D3004A020H	PC EQUALIZER BLK EA-A22(B)

NOTE:

PC EQUALIZER BLK consists of following PC BOARDS.

- EQUALIZER PC BOARD
- POWER SW PC BOARD
- POWER SUPPLY PC BOARD

2. EQUALIZER PC BOARD

REF. NO.	PART NO.	DESCRIPTION
2-IC1,2	EI-355211	IC M5227P
2-TR1	ET-349705	TR 2SC2320 E,F,G
2-TR2	ET-308141	TR 2SC2320 G
2-TR3	ET-310148	TR 2SD612K E,F
2-TR4	ET-349705	TR 2SC2320 E,F,G
2-D1	ED-329058	D ZENER H HZ5 C1
2-D2 to 5	ED-301911	D SILICON H DS448
2-D6	ED-323836	D ZENER H HZ16 2
2-D7	ED-330319	D SILICON DBA10B 100/1.0A
2-C21	EC-314997	C STY V S05 CQF3 391K 50 DC

3. EQUALIZER SW PC BOARD

REF. NO.	PART NO.	DESCRIPTION
		EQ SW PC BOARD
3-SW301	ES-362778	SW PUSH SPUJ-31 3 THROW
		JACK PC BOARD
3-J301,302	EJ-336905	PIN J AJC-035-ACB P 4P

4. POWER SW PC BOARD

REF. NO.	PART NO.	DESCRIPTION
4-SW2	ES-355213	SW PUSH SUL191S 2-02-02N

5. POWER SUPPLY PC BOARD

REF. NO.	PART NO.	DESCRIPTION
		POWER SUPPLY PC BOARD
5-SW3	ES-349464	⚠ SW SLIDE 00120319 01-2 [U]
		ASSEMBLY BLOCK
5-T1A	BT-355205	⚠ TRANS POWER D3004 (U)
5-T1B	BT-355207	⚠ TRANS POWER D3004 (A,C)
5-T1C	BT-355208	⚠ TRANS POWER D3004 (E,B,S)
5-F1A	EF-339902	⚠ FUSE SEMKO T 100MA 250V [E,S]
5-F1B	EF-360723	⚠ FUSE BET T 100MA 250V [B]
5-F2	EF-355226	⚠ FUSE BET T 1.00A 250V [B]

6. ASSEMBLY BLOCK

REF. NO.	PART NO.	DESCRIPTION
		ASSEMBLY BLOCK
6-1	SA-332850	ROUND FOOT
6-2	ZS-447840	T2BR30X08STL CMT [FOOT FIX]
6-3A	SP-358714M	PANEL REAR EA-A22 (U)
6-3B	SP-358714N	PANEL REAR EA-A22 (C,A)
6-3C	SP-358714P	PANEL REAR EA-A22 (E)
6-3D	SP-358714Q	PANEL REAR EA-A22 (B,S)
6-4	ZS-463353	T2BR30X08STL BNI [PANEL REAR FIX]
6-5A	ZS-310984	PT BR30X08STL CMT [VR901 FIX]
6-6	ZS-463353	T2BR30X08STL BNI [COVER UPPER FIX]
6-7A	EW-347683	⚠ AC CORD 2 CORES VM0129, VFF-CB U/T [U]
6-7B	EW-347607	⚠ AC CORD 2 CORES VM0238, SPT-1CB UC [C,A]
6-7C	EW-347682	⚠ AC CORD 2 CORES VM0364, FC3097-CB EV [E]
6-7D	EW-347680	⚠ AC CORD 2 CORES LCFL2X0.75-CB B [B]
6-7E	EW-347681	⚠ AC CORD 2 CORES VM0436, FC3093-CB S [S]
6-8	EW-344151	CORD RR-61A PIN×2-PIN×2 [ACCESSORY]
6-VR901	EV-355209	VR SPL SLIDE 20MM 9-THROW GLAY
		LED PC BOARD
6-D8	ED-322772	D LED SLP-155D-01 RED

7. FINAL ASSEMBLY BLOCK

REF. NO.	PART NO.	DESCRIPTION
7-1	BD-358984C	PANEL FRONT EA-A22
7-1B	BD-358984D	PANEL FRONT EA-A22-B
7-2	ZS-463353	T2BR30X08STL BNI [PANEL FRONT FIX]
7-3	SK-343017C	KNOB POWER (2)
7-3B	SK-343017F	KNOB POWER-B
7-4	SK-358063A	KNOB PUSH [EQUALIZER,MODE, MONITOR]
7-4B	SK-358063B	KNOB PUSH-B [EQUALIZER,MODE, MONITOR]
7-5	SP-358718A	COVER UPPER
7-5B	SP-358718B	COVER UPPER-B

SYMBOL FOR COLOR VARIATION

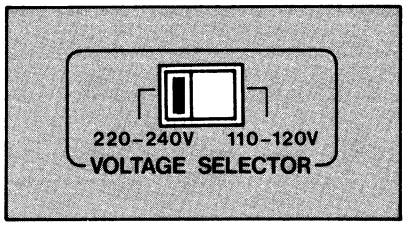
NON : STANDARD COLOR
B or BL : BLACK

INDEX

REF. NO.	PART NO.	REF. NO.	PART NO.	REF NO.	PART NO.	REF NO.	PART NO.	REF. NO.	REF. NO.
BA-D3004A020E	1-1A	EI-355211	2-IC1	SK-358063B	7-4B				
BA-D3004A020F	1-1B	EJ-336905	3-J301, 302	SP-358714M	6-3A				
BA-D3004A020G	1-1C	ES-349464	5-SW3	SP-358714N	6-3B				
BA-D3004A020H	1-1D	ES-355213	4-SW2	SP-358714P	6-3C				
BD-358984C	7-1	ES-362778	3-SW301	SP-358714Q	6-3D				
BD-358984D	7-1B	ET-310148	2-TR3	SP-358718A	7-5				
BT-355205	5-T1A	ET-349705	2-TR1	SP-358718B	7-5B				
BT-355207	5-T1B	ET-349705	2-TR4	ZS-310984	6-5A				
BT-355208	5-T1C	ET-308141	2-TR2	ZS-447840	6-2				
EC-314997	2-C21	EV-355209	6-VR901	ZS-463353	6-4				
ED-301911	2-D5	EW-344151	6-8	ZS-463353	6-6				
ED-301911	2-D2 to 4	EW-347607	6-7B	ZS-463353	7-2				
ED-322772	6-D8	EW-347680	6-7D						
ED-323836	2-D6	EW-347681	6-7E						
ED-329058	2-D1	EW-347682	6-7C						
ED-330319	2-D7	EW-347683	6-7A						
EF-339902	5-F1A	SA-332850	6-1						
EF-355226	5-F2	SK-343017C	7-3						
EF-360723	5-F1B	SK-343017F	7-3B						
EI-355211	2-IC2	SK-358063A	7-4						

III. VOLTAGE CONVERSION

Models for USA, Canada, Europe, UK and Australia are not equipped with this facility.
Each machine is preset at the factory according to its destination, but some machines can be set to 110V, 120V, 220V, or 240V as required.
If your machine's voltage can be converted:
Before connecting the power cord, switch the VOLTAGE SELECTOR located on the rear panel with a screwdriver until the correct voltage is indicated.



IV. PARTS LIST

MONITOR (TAPE (▬)/(▁) LINE) switch
To select the input you want to monitor.

Commutateur moniteur ((MONITOR) (Bande (▬)/(▁) (Ligne)) (TAPE/LINE)
Pour sélectionner l'entrée que vous désirez contrôler.

POWER ON/STANDBY switch
To turn ON and OFF the power of the Akai EA-A22.

Commutateur d'alimentation/attente (POWER/STANDBY)
Pour mettre sous tension (ON) et hors circuit (OFF) le EA-A22 Akai.

MODE (REC (▁)/(▬) PB) switch
To choose either the recording or playback mode.

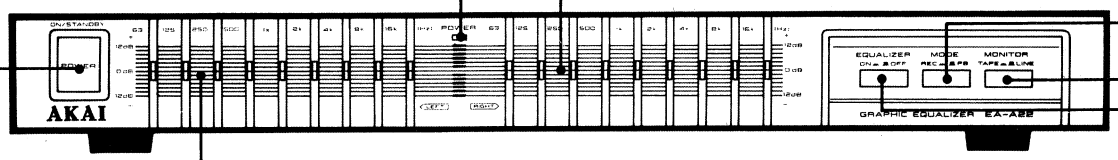
Commutateur de mode (MODE) ((Enregistrement (▁)/ Reproduction (▬)) (REC/PB)
Pour choisir le mode d'enregistrement ou le mode de reproduction.

POWER indicator
Lights when the Akai EA-A22 POWER switch is ON.

Indicateur d'alimentation (POWER)
Vous indique lorsque le commutateur d'alimentation (POWER) du EA-A22 Akai est mis sous tension (ON).

Right Channel Frequency Level Controls (63Hz to 16kHz)
To boost or cut (reduce) the indicated frequency levels of the right channel signals.

Commandes du niveau de fréquence du canal de droite (63 Hz à 16 kHz)
Pour amplifier ou réduire les niveaux de fréquence indiqués des signaux du canal de droite.



EQUALIZER ON (▁)/(▬) OFF switch
To turn ON and turn OFF the equalizer at the touch of a switch.

Commutateur égaliseur sous tension (▁)/hors circuit (▬) (EQUALIZER ON/OFF)
Pour mettre sous tension (ON) et hors circuit (OFF) l'égaliseur.

Left Channel Frequency Level Controls (63Hz to 16kHz)
To boost or cut (reduce) the indicated frequency levels of the left channel signals.

Commandes du niveau de fréquence du canal de gauche (63 Hz à 16 kHz)
Pour amplifier ou réduire les niveaux de fréquence indiqués des signaux du canal de gauche.

AKAI ELECTRIC CO., LTD. 12-14,2-Chome,Higashi-Kojiya,Ohta-ku,Tokyo,Japan
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